

## Dve led ovládané jedným tlačidlom

```
/*Using a Single Button, create mutiple options based on how long the button is pressed
This code is in the public domain
*/
//////////Declare and Initialize Variables//////////
//We need to track how long the momentary pushbutton is held in order to execute different commands
//This value will be recorded in seconds
float pressLength_milliSeconds = 0;
// Define the *minimum* length of time, in milli-seconds, that the button must be pressed for a
particular option to occur
int optionOne_milliSeconds = 100;
int optionTwo_milliSeconds = 2000;
//The Pin your button is attached to
int buttonPin = 2;
//Pin your LEDs are attached to
int ledPin_Option_1 = 13;
int ledPin_Option_2 = 12;
void setup(){
  // Initialize the pushbutton pin as an input pullup
  // Keep in mind, when pin 2 has ground voltage applied, we know the button is being pressed
  pinMode(buttonPin, INPUT_PULLUP);
  //set the LEDs pins as outputs
  pinMode(ledPin_Option_1, OUTPUT);
  pinMode(ledPin_Option_2, OUTPUT);
  //Start serial communication - for debugging purposes only
  Serial.begin(9600);
} // close setup
void loop() {
  //Record *roughly* the tenths of seconds the button in being held down
  while (digitalRead(buttonPin) == LOW ){
    delay(100); //if you want more resolution, lower this number
    pressLength_milliSeconds = pressLength_milliSeconds + 100;
    //display how long button is has been held
    Serial.print("ms = ");
    Serial.println(pressLength_milliSeconds);
  } //close while
  //Different if-else conditions are triggered based on the length of the button press
  //Start with the longest time option first
  //Option 2 - Execute the second option if the button is held for the correct amount of time
  if (pressLength_milliSeconds >= optionTwo_milliSeconds){
    digitalWrite(ledPin_Option_2, HIGH);
  }
  //option 1 - Execute the first option if the button is held for the correct amount of time
  else if(pressLength_milliSeconds >= optionOne_milliSeconds){
    digitalWrite(ledPin_Option_1, HIGH);
  } //close if options
  //every time through the loop, we need to reset the pressLength_Seconds counter
  pressLength_milliSeconds = 0;
} // close void loop
```

